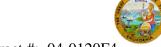
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001277 Address: 333 Burma Road **Date Inspected:** 18-Jan-2008

City: Oakland, CA 94607

OSM Arrival Time: 900 **Project Name:** SAS Superstructure **OSM Departure Time:** 1830 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No Hu Wei Qing **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower mock ups and OBG components

Summary of Items Observed:

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

Bay 7: The QA inspector observed ZPMC non-destructive testing (NDT) persons E Shuiqin, Li Li Ming and Xue Hairong conducting ultrasonic testing (UT) on various completed welds of floor beam diaphragm assemblies. The QA inspector noted that approximately 14 different assemblies are laying in Bay 7 and being worked on or inspected by ZPMC personnel. As the QA inspector was observing the UT being conducted by the NDT personnel, the QA inspector noted that the welds being tested by UT were identified as being visually acceptable by ZPMC Quality Control (QC) inspectors. The QA inspector noted that as the NDT personnel are completing their inspections, they are identifying the welds as accepted or rejected, with their name and date written near the welds. The QA inspector proceeded to conduct random visual examination and ultrasonic verification of these welds. At the time of 10% examination of FB015-04 weld 021 & weld 026, FB015-03 weld 043 and FB016-04 weld 043, the welds appeared to be conforming to the requirements of AWS D1.5 2002 Table 6.3. The QA inspector noted that during the 10% examination of FB008-01 weld 043, there was an ultrasonic indication that does not satisfy the UT acceptance criteria of AWS D1.5 2002 Table 6.3. The QA inspector showed this indication to the ZPMC NDT personnel who were present in Bay 7 (listed above). The ZPMC NDT personnel then re-inspected the weld area and the QA inspector noted that there a discussion between themselves. The QA inspector observed the NDT personnel write indication location markings on the weld after they re-inspected it. During the QA inspector's examinations, the QA inspector noted that the termination area between weld 043 and 044 and the diaphragm plates of the various floor beam assemblies, several of the terminations do not appear to be

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

visually conforming to the contract requirements at this time. The QA inspector showed these to the CWI Hu Wei Qing. The QA inspector was unable to verify if the opposite side weld (044) has been completed and accepted at this time.





Summary of Conversations:

As noted above, the QA inspector Scott Croff had conversations with the ZPMC NDT persons E Shuiqin, Li Li Ming and Xue Hairong. The conversations were regarding the UT that was being conducted and observed by the QA inspector. The QA inspector also informed the NDT personnel of the observed indication in FB008-01 weld 043. There was no Liaison or translator available to assist the conversations so the QA inspector showed them the indication, as it was displayed on the UT equipment. The QA inspector noted that all of the NDT personnel then took turns scanning the weld area and observed a similar indication. After some conversation between the NDT personnel, the QA inspector observed them write the indication location data on the part near the weld. Also as noted above, the QA inspector had a general conversation with the CWI Hu Wei Qing. The QA inspector showed the CWI the termination area of several floor beam assemblies. The QA inspector showed the CWI that some of the terminations appear to be conforming and others do not appear to be conforming.

The QA inspector Scott Croff informed the QA inspector James Cochran of the observations and conversations described above. The QA inspector Scott Croff then generated a summary report to be included in the daily shift log. There were no other notable conversations during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Croff,Scott	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer